ARTICLE 4—PROTECTION OF SPECIAL MANAGEMENT AREAS

4-00. Reserved

4-01. Disclaimer

Nothing in this ordinance purports to alter or affect the regulatory program administered by IDNR-OWR. Anything in this ordinance to the contrary notwithstanding, if under the rules and regulations administered by IDNR-OWR a submittal need not be made to IDNR-OWR, or a review, approval or permit from IDNR-OWR need not be obtained, then nothing in this ordinance shall be construed to impose a requirement that such a submittal be made or that such a review, approval or permit be obtained from IDNR-OWR. Similarly, if IDNR-OWR has delegated its regulatory authority to another entity, then anything in this ordinance to the contrary notwithstanding, if required by such entity, such submittal shall be made or such review, approval or permit shall be obtained from such entity.

4-02. Statewide and regional permits

Development that qualifies for any of the self-issuing statewide or regional permits administered by IDNR-OWR (Statewide Permits Nos. 1 through 14 and Regional Permit No. 3), are similarly permitted under this Article. The developer need only submit to the Administrator such information and shall show the Administrator that the development qualifies for the particular statewide or regional permit in question under the regulations established by IDNR-OWR for such permit and no further submittal need be made under this Article. All other provisions of this ordinance applicable to such development, however, continue to apply.

4-03. Floodplain management

All development shall meet the requirements set forth in Table 4-03 and shall require a Floodplain Encroachment Permit issued by the Administrator.

Table 4-03 - Summary of requirements for development in floodplains

	404	405	406	407	408	409	410	411	412	413
loodplains	All	405(e) 405(f)	All	:	344	All	744	(94)	144	
Regulatory Iloodplains	All	All	All	All	All	***	All (Note 1)	(88)	100	**
Regulatory loodways	All	All	Ali	All (Note 2)	All		All	All	F	-
Riverine Regulatory Floodplains	All	All	All	All	All	20:	=		All	
Bridge and Culvert Crossings	All	All	(HA):		*		All (Note 3)	(GA)	194	All

Note 1. Riverine, floodplains only

Note 2. For buildings meeting appropriate use criteria

Note 3. See exclusion in § 413(c)

4-04. Floodplain, regulatory floodplain, BFE and regulatory floodway locations

This article's protection standard is the base flood. The best available base flood data are listed below. The Administrator may require the use of a floodplain study not yet approved by IDNR-OWR and FEMA if its use would establish a higher BFE than the approved study. Whenever a party disagrees with the best available data, the party shall finance the detailed engineering study needed to replace the existing

data with better data and submit it to the FEMA and IDNR/OWR for approval prior to any development of the site.

- A. The base flood elevation for the floodplains of Ditch No. 3, Dry Creek, Keith Creek, Kilburn Creek, Kilbuck Creek, Kishwaukee River, Madigan Creek, Main Drainage Ditch, Manning Creek, McDonald Creek, Mud Creek, North Branch Otter Creek, North Kent Creek, North Kinnikinnick Creek, Otter Creek, Pecatonica River, Randalls Creek, Rock River, South Branch Dry Creek, South Branch Kishwaukee River, South Branch Otter Creek, South Ditch, South Kent Creek/Kent Creek, South Kinnikinnick Creek shall be as delineated on the 100-year flood profiles in the countywide Flood Insurance Study of Winnebago County prepared by the Federal Emergency Management Agency and dated September 6, 2006 and subsequently updated February 17, 2016.
- B. The base flood elevation for each floodplain delineated as an "AH Zone" or AO Zone" shall be that elevation (or depth) delineated on the county wide Flood Insurance Rate Map of Winnebago County.
- C. The base flood elevation for each of the remaining floodplains delineated as an "A Zone" on the countywide Flood Insurance Rate Map of Winnebago County shall be according to the best data available from federal, state or sources. Should no other data exist, an engineering study must be financed by the applicant to determine base flood elevations.
- D. The base flood elevation for the floodplains of those parts of unincorporated Winnebago_County that are within the extraterritorial jurisdiction of the City of Rockford or that may be annexed into the City of Rockford, shall be as delineated on the 100-year flood profiles in the Flood Insurance Study of Winnebago County prepared by the Federal Emergency Management Agency and dated September 6, 2006 and subsequently updated February 17, 2016.

4-05. General performance standards

The following general performance standards are applicable to all development in a regulatory floodplain. The standards of this section apply except when superseded by more stringent requirements in subsequent sections.

- (a) No development shall be allowed in the regulatory floodplain that singularly or cumulatively creates any increase in flood stage or velocity offsite, or a damaging or potentially damaging increase in flood heights or velocity onsite or a threat to the public health, safety and welfare.
- (b) For all projects involving a channel modification, fill, stream maintenance or a levee, the flood conveyance and storage capacity of the regulatory floodplain shall not be reduced.
- (c) If the proposed development would result in a change in the regulatory floodplain or BFE the applicant shall obtain a LOMR from FEMA. No buildings may be built in the existing or proposed regulatory floodplain until the LOMR is obtained from FEMA unless the building meets all the building protection standards of Sec. 4-07. Proposed changes to the regulatory floodway delineation and the BFE must be submitted to IDNR/OWR for approval.
- (d) If the development is located in the Rock River a permit must also be received from IDNR/OWR.
- (e) Prior to the commencement of any construction, modification or removal of a dam the developer shall obtain an IDNR/OWR Dam Safety Permit or letter indicating a permit is not required.
- (f) For public flood control projects, Secs. 4-03 through 4-13 will be deemed met if the applicant demonstrates to IDNR/OWR and the Administrator—

- (1) by hydraulic and hydrologic modeling that the proposed project will not singularly or cumulatively result in increased flood heights outside the project site or that any increases will be contained in easements for all flood events up to and including the base flood event;
- (2) that the project will be operated and maintained by a public entity;
- (3) that the project will reduce flood damage to an existing building or structure.
- (g) Fences within the floodplain shall not impede the base flood.

Nothing in this section precludes the design, engineering, construction or financing, in whole or in part, of a public flood control project by persons who are not public entities.

4-06. Public health protection standards

- A. Public health standards must be met for all floodplain development. In addition to the requirements of Sections 6 and 7 of this ordinance the following standards apply:
 - 1. No development in the floodplain shall include locating or storing chemicals, explosives, buoyant materials, flammable liquids, pollutants, or other hazardous or toxic materials below the flood protection elevation unless such materials are stored in a floodproofed and anchored storage tank and certified by a professional engineer or floodproofed building constructed according to the requirements of Section 7 of this ordinance.
 - 2. Public utilities and facilities such as sewer, gas and electric shall be located and constructed to minimize or eliminate flood damage.
 - 3. Public sanitary sewer systems and water supply systems shall be located and constructed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
 - 4. New and replacement on-site sanitary sewer lines or waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding. Manholes or other above ground openings located below the flood protection elevation shall be watertight.
 - 5. Construction of new or substantially improved critical facilities shall be located outside the limits of the floodplain. Construction of new critical facilities shall be permissible within the floodplain if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor (including basement) elevated or structurally dry floodproofed to the 500-year flood frequency elevation or three feet above the level of the 100-year flood frequency elevation whichever is greater. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities.
- B. All other activities defined as development shall be designed so as not to alter flood flows or increase potential flood damages.

4-07. Building protection standards

This section applies to all buildings located in the regulatory floodplain. However, most new and replacement buildings are not appropriate uses of the regulatory floodway.

- A. In addition to the state permit and damage prevention requirements of this ordinance, all buildings located in the floodplain shall be protected from flood damage below the flood protection elevation. This building protection requirement applies to the following situations:
 - 1. Construction or placement of a new building or alteration or addition to an existing building valued at more than one thousand dollars (\$1,000) or seventy (70) square feet.
 - 2. Substantial improvements or structural alterations made to an existing building that increase the floor area by more than twenty percent (20%) or equal or exceed the market value by fifty percent (50%). Alteration shall be figured cumulatively during the life of the building. If substantially improved, the existing structure and the addition must meet the flood protection standards of this section.
 - 3. Repairs made to a substantially damaged building. These repairs shall be figured cumulatively during the life of the building. If substantially damaged the entire structure must meet the flood protection standards of this section within 24 months of the date the damage occurred.
 - 4. Installing a manufactured home on a new site or a new manufactured home on an existing site. (The building protection requirements do not apply to returning a manufactured home to the same site it lawfully occupied before it was removed to avoid flood damage).
 - 5. Installing a travel trailer or recreational vehicle on a site for more than one hundred eighty (180) days per year.
 - 6. Repetitive loss to an existing building as defined in Article 1.
- B. <u>Residential or non-residential buildings</u> can meet the building protection requirements by one of the following methods:
 - 1. The building may be constructed on permanent land fill in accordance with the following:
 - a. The lowest floor (including basement) shall be at or above the flood protection elevation.
 - b. The fill shall be placed in layers no greater than six inches before compaction and should extend at least ten (10) feet beyond the foundation before sloping below the flood protection elevation.
 - c. The fill shall be protected against erosion and scour during flooding by vegetative cover, riprap, or other structural measure.
 - d. The fill shall be composed of rock or soil and not incorporated debris or refuse material, and
 - e. Shall not adversely affect the flow of surface drainage from or onto neighboring properties and when necessary stormwater management techniques such as swales or basins shall be incorporated.
 - 2. The building may be elevated on solid walls in accordance with the following:
 - a. The building or improvements shall be elevated on stilts, piles, walls, crawlspace, or other foundation that is permanently open to flood waters.

- b. The lowest floor and all electrical, heating, ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the flood protection elevation.
- c. If walls are used, all enclosed areas below the flood protection elevation shall address hydrostatic pressures by allowing the automatic entry and exit of flood waters. Designs must either be certified by a licensed professional engineer or by having a minimum of one (1) permanent opening on each wall no more than one (1) foot above grade with a minimum of two (2) openings. The openings shall provide a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area subject to flooding below the base flood elevation, and
- d. The foundation and supporting members shall be anchored, designed, and certified so as to minimize exposure to hydrodynamic forces such as current, waves, ice, and floating debris.
 - i. All structural components below the flood protection elevation shall be constructed of materials resistant to flood damage.
 - ii. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the flood protection elevation provided they are waterproofed.
 - iii. The area below the flood protection elevation shall be used solely for parking or building access and not later modified or occupied as habitable space, or
 - iv. in lieu of the above criteria, the design methods to comply with these requirements may be certified by a licensed professional engineer or architect.
- 3. The building may be constructed with a <u>crawlspace</u> located below the flood protection elevation provided that the following conditions are met:
 - a. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 - b. Any enclosed area below the flood protection elevation shall have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. A minimum of one opening on each wall having a total net area of not less than one (1) square inch per one (1) square foot of enclosed area. The openings shall be no more than one (1) foot above grade.
 - c. The interior grade of the crawlspace below the flood protection elevation must not be more than two (2) feet below the lowest adjacent exterior grade.
 - d. The interior height of the crawlspace measured from the interior grade of the crawl to the top of the foundations wall must not exceed four (4) feet at any point.
 - e. An adequate drainage system must be installed to remove floodwaters from the interior area of the crawlspace within a reasonable period of time after a flood event.
 - f. Portions of the building below the flood protection elevation must be constructed with materials resistant to flood damage, and
 - g. Utility systems within the crawlspace must be elevated above the flood protection elevation.
- C. <u>Non-residential buildings</u> may be structurally dry floodproofed (in lieu of elevation) provided a licensed professional engineer or architect certifies that:
 - 1. Below the flood protection elevation the structure and attendant utility facilities are watertight and capable of resisting the effects of the base flood.
 - 2. The building design accounts for flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy, and the impact from debris and ice.

- 3. Floodproofing measures will be incorporated into the building design and operable without human intervention and without an outside source of electricity.
- 4. Levees, berms, floodwalls and similar works are not considered floodproofing for the purpose of this subsection.
- D. Manufactured homes or travel trailers to be permanently installed on site shall be:
 - 1. elevated to or above the flood protection elevation in accordance with Section 7(B), and
 - 2. anchored to resist flotation, collapse, or lateral movement by being tied down in accordance with the rules and regulations for the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code § 870.
- E. <u>Travel trailers and recreational vehicles</u> on site for more than one hundred eighty (180) days per year shall meet the elevation requirements of section 7(D) unless the following conditions are met:
 - 1. The vehicle must be either self-propelled or towable by a light duty truck.
 - 2. The hitch must remain on the vehicle at all times.
 - 3. The vehicle must not be attached to external structures such as decks and porches
 - 4. The vehicle must be designed solely for recreation, camping, travel, or seasonal use rather than as a permanent dwelling.
 - 5. The vehicles largest horizontal projections must be no larger than four hundred (400) square feet.
 - 6. The vehicle's wheels must remain on axles and inflated.
 - 7. Air conditioning units must be attached to the frame so as to be safe for movement of the floodplain.
 - 8. Propane tanks as well as electrical and sewage connections must be quick-disconnect.
 - 9. The vehicle must be licensed and titled as a recreational vehicle or park model, and
 - 10. must either:
 - a. entirely be supported by jacks, or
 - b. have a hitch jack permanently mounted, have the tires touching the ground and be supported by block in a manner that will allow the block to be easily removed by used of the hitch jack.
- F. <u>Garages</u>, <u>sheds or other minor accessory structures</u> constructed ancillary to an existing residential use may be permitted provided the following conditions are met:
 - 1. The garage of shed must be non-habitable.
 - 2. The garage or shed must be used only for the storage of vehicles and tools and cannot be modified later into another use.
 - 3. The garage or shed must be located outside of the floodway or have the appropriate state and/or federal permits.
 - 4. The garage or shed must be on a single family lot and be accessory to an existing principle structure on the same lot.
 - 5. Below the base flood elevation, the garage or shed must be built of materials not susceptible to flood damage.
 - 6. All utilities, plumbing, heating, air conditioning and electrical must be elevated above the flood protection elevation.

- 7. The garage or shed must have at least one permanent opening on each wall not more than one (1) foot above grade with one (1) square inch of opening for every one (1) square foot of floor area.
- 8. The garage or shed must be less than fifteen thousand dollars (\$15,000) in market value or replacement cost whichever is greater or less than five hundred and seventy six (576) square feet (24'x24').
- 9. The structure shall be anchored to resist floatation and overturning.
- 10. All flammable or toxic materials (gasoline, paint, insecticides, fertilizers, etc.) shall be stored above the flood protection elevation.
- 11. The lowest floor elevation should be documented and the owner advised of the flood insurance implications.

4-08. Non-conforming structures

A non-conforming structure damaged by flood, fire, wind or other disaster may be restored unless the damage or cumulative permit value is equal to or greater than 50% of its fair market value before it was damaged, in which case it shall conform to Sec. 4-07.

4-09. Preventing Increased Flood Heights and Resulting Damages

No development in the floodplain shall create a threat to public health and safety.

A. Compensatory Storage.

- 1. Whenever any portion of a floodplain is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the base flood or 100-year frequency flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood or 100-year frequency flood elevation.
- 2. The excavation volume shall be at least equal to 1.5 times the volume of storage lost due to the fill or structure
- 3. In the case of streams and watercourses, such excavation shall be made opposite or adjacent to the areas so filled or occupied.
- 4. All floodplain storage lost below the existing 10-year flood elevation shall be replaced below the proposed 10-year flood elevation. All floodplain storage lost above the existing 10-year flood elevation shall be replaced above the proposed 10-year flood elevation.
- 5. All such excavations shall be constructed to drain freely and openly to the watercourse.

Within any floodway identified on the countywide Flood Insurance Rate Map, and within all other floodplains where a floodway has not been delineated, the following standards shall apply:

B. The only development in a floodway which will be allowed are Appropriate Uses, which will not cause a rise in the base flood elevation, and which will not create a damaging or potentially damaging increase in flood heights or velocity or be a threat to public health and safety and welfare or impair the natural hydrologic and hydraulic functions of the floodway or channel, or permanently impair existing water quality or aquatic habitat. Construction impacts shall be minimized by appropriate mitigation methods as called for in this Ordinance. The approved Appropriate Uses are as follows:

- 1. Flood control structures, dikes, dams and other public works or private improvements relating to the control of drainage, flooding, erosion, or water quality or habitat for fish and wildlife.
- 2. Structures or facilities relating to the use of, or requiring access to, the water or shoreline, such as pumping and treatment facilities, and facilities and improvements related to recreational boating, commercial shipping and other functionally water dependent uses;
- 3. Storm and sanitary sewer relief outfalls;
- 4. Underground and overhead utilities;
- 5. Recreational facilities such as playing fields and trail systems, including any related fencing (at least 50 percent open when viewed from any one direction) built parallel to the direction of flood flows, and including open air pavilions and toilet facilities (4 stall maximum) that will not block flood flows nor reduce floodway storage;
- 6. Detached garages, storage sheds, or other non-habitable accessory structures that will not block flood flows nor reduce floodway storage;
- 7. Bridges, culverts, roadways, sidewalks, railways, runways and taxiways and any modification thereto;
- 8. Parking lots built at or below existing grade where either:
 - a. The depth of flooding at the 100-year frequency flood event will not exceed 1.0 foot; or
 - b. The applicant of a short-term recreational use facility parking lot formally agrees to restrict access during overbank flooding events and accepts liability for all damage caused by vehicular access during all overbank flooding events.
- 9. Floodproofing activities to protect previously existing lawful structures including the construction of water tight window wells, elevating structures, or construction of floodwalls around residential, commercial or industrial principal structures where the outside toe of the floodwall shall be no more than ten (10) feet away from the exterior wall of the existing structure, and, which are not considered substantial improvements to the structure.
- 10. The replacement, reconstruction, or repair of a damaged building, provided that the outside dimensions are not increased, and if the building was damaged to fifty (50%) percent or more of the market value before the damage occurred, the building will be protected from flooding to the flood protection elevation.
- 11. Modifications to an existing building that would not increase the enclosed floor area of the building below the 100-year frequency flood elevation, and which will not block flood flows including but not limited to, fireplaces, bay windows, decks, patios, and second story additions. If the building is improved to fifty (50%) percent or more of the market value before the modification occurred (i.e., a substantial improvement), the building will be protected from flooding to the flood protection elevation.

Appropriate uses do not include the construction or placement of any new structures, fill, building additions, excavation or channel modifications done to accommodate otherwise non-appropriate uses in the floodway, fencing (including landscaping or planting designed to act as a fence) and storage of materials except as specifically defined above as an Appropriate Use.

- C. Compensatory storage in noted in Article 4.09A shall apply.
- D. Except as provided in Article 4.09B of this ordinance, no development shall be allowed which, acting in combination with existing and anticipated development will cause any increase in flood heights or velocities or threat to public health and safety. The following specific development activities shall be considered as meeting this requirement*:
 - 1. Bridge and culvert crossings of streams in rural areas meeting the conditions of the Illinois Department of Natural Resources, Office of Water Resources Statewide Permit Number 2:
 - 2. Barge fleeting facilities meeting the conditions of IDNR/OWR Statewide Permit Number 3:
 - 3. Aerial utility crossings meeting the conditions of IDNR/OWR Statewide Permit Number 4;
 - 4. Minor boat docks meeting the following conditions of IDNR/OWR Statewide Permit Number 5:
 - 5. Minor, non-obstructive activities such as underground utility lines, light poles, sign posts, driveways, athletic fields, patios, playground equipment, minor storage buildings not exceeding 70 square feet and raising buildings on the same footprint which does not involve fill and any other activity meeting the conditions of IDNR/OWR Statewide Permit Number 6:
 - 6. Outfall Structures and drainage ditch outlets meeting the following conditions of IDNR/OWR Statewide Permit Number 7:
 - 7. Underground pipeline and utility crossings meeting the conditions of IDNR/OWR Statewide Permit Number 8:
 - 8. Bank stabilization projects meeting the conditions of IDNR/OWR Statewide Permit Number 9:
 - 9. Accessory structures and additions to existing residential buildings meeting the conditions of IDNR/OWR Statewide Permit Number 10:
 - 10. Minor maintenance dredging activities meeting the following conditions of IDNR/OWR Statewide Permit Number 11:
 - 11. Bridge and culvert replacement structures and bridge widening meeting the following conditions of IDNR/OWR statewide Permit Number 12:
 - 12. Temporary construction activities meeting the following conditions of IDNR/OWR statewide Permit Number 13:
 - 13. Any Development determined by IDNR/OWR to be located entirely within a flood fringe area shall be exempt from State Floodway permit requirements.
- E. Other development activities not listed in 10(B) may be permitted only if:
 - 1. Permit has been issued for the work by IDNR/OWR (or written documentation is provided that an IDNR/OWR permit is not required), or
 - 2. Sufficient data has been provided to FEMA when necessary, and approval obtained from FEMA for a revision of the regulatory map and base flood elevation.

4-10. Requirements for wetland delineation

- (a) Before any development in or near Waters of the U.S., or in or near isolated wetlands or farmed wetlands, a written report identifying and evaluating the boundaries, location, limits, area and quality of all onsite wetlands shall be submitted. The presence and limits of wetland areas shall be determined by a wetland delineation conducted in accordance with the 1987 Corps of Engineers Wetland Delineation Manual. Wetland delineations under this section shall be valid for three years. The presence of farmed wetlands shall be determined by NRCS.
- (b) Before any development on agricultural land, in addition to the onsite delineation required under the previous paragraph, a Certified Wetland Determination shall be obtained from NRCS.

- (c) Delineations for permitting purposes shall be performed only during the period beginning on the last Monday of March and ending on the third Friday of November.
- (d) The approximate location, extent and relative quality of wetlands within 50 feet of the site shall be identified and included in the written report. The location and extent of such offsite wetlands shall be determined by using the first of the following documents or procedures pertaining at the time of development:
 - (1) site specific delineation according to the 1987 Manual. If such delineation is not available, then
 - (2) wetlands identified in watershed plans or studies. If such plans are not available, then—
 - (3) wetlands identified in interim watershed plans. If such plans are not available, then—
 - (4) wetlands identified on NRCS wetlands inventory maps.

4-11. Mitigation to be local

All wetland mitigation required under a COE 404 permit for wetland disturbances in the City shall be provided in the City.

4-12. Threatened and endangered species consultation

Prior to the issuance of a stormwater management permit or the Building Permit the applicant shall consult with IDNR and the United States Fish and Wildlife Service with respect to the presence of threatened or endangered species and shall obtain a "positive outcome" letter or other instrument of approval. If this consultation is not completed by the Developer then the City shall submit for consultation and the fee be charged back to the Developer. No permit will be issued until the "positive outcome" letter is received by the Department. The Department may require the development to be in accordance with one or more of the recommendations set forth by the IDNR and the United States Fish and Wildlife Service.

4-13. Wetland preservation during development

Preserved wetlands shall be protected during development.

4-14. Buffer requirements

The buffer requirements for wetland designated areas are to be in accordance with the COE permit and with the following requirements:

- (a) Buffers shall be replanted or reseeded using appropriate predominately native deep-rooted vegetation, appropriately managed and maintained following disturbance.
- (b) The buffer area for all lineal and non-lineal Waters of the U.S. except wetlands shall extend from the jurisdictional limits of the Waters of the U.S. ordinary high water mark. The buffer area for wetlands shall extend from the edge of the approved delineated wetland boundary. A site may contain buffer that originates from a Waters of the U.S. or wetland located on another property.
- (c) Access through buffer areas shall be allowed when necessary for maintenance purposes. Unless otherwise dedicated for a public purpose, buffer areas shall remain private property and are not

generally accessible to the public.

- (d) Undetained stormwater which has not passed through a site runoff storage facility shall discharge through an area or structure meeting the definition of best management practices or buffer before entering a jurisdictional Waters of the U.S. or wetland.
- (e) All buffer areas once established shall be maintained free from development, except as follows:
 - (1) A buffer area may be used for passive recreation (e.g. birdwatching, walking, jogging, bicycling, horseback riding and picnicking) and it may contain pedestrian, bicycle or equestrian trails, provided that the created path is no wider than ten feet. If the path leads to a wetland, it must be a winding path to help prevent erosion.
 - (2) Non-habitable structures (i.e., tool shed) and impervious surfaces may occupy a maximum of 15% of the portion of the required buffer that extends onto or is part of an individual property.
 - (3) Utility maintenance and maintenance of drainage facilities and drainage easements shall be allowed provided the maintenance activity meets all other federal, state and local regulations.
 - (4) Anchoring and placement of boat docks and piers shall be allowed provided the structure meets all other federal, state and local regulations.

4-15. Carrying Capacity and Notification

For all projects involving channel modification, fill, or stream maintenance (including levees), the flood carrying capacity of the watercourse shall be maintained.

In addition, the City of Rockford shall notify adjacent communities in writing thirty (30) days prior to the issuance of a permit for the alteration or relocation of the watercourse.

4-16. Disclaimer of Liability.

The degree of protection required by this Article is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study. Larger floods may occur or flood heights may be increased by man-made or natural causes. This Article does not imply that development either inside or outside of the floodplain will be free from flooding or damage. This Article does not create liability on the part of the City of Rockford or any officer or employee thereof for any flood damage that results from proper reliance on this ordinance or any administrative decision made lawfully thereunder.